INFORMATION

Poliomyelitis in California - 1948

The incidence of poliomyelitis in California for 1948 as reported to the State Department of Public Health has well exceeded that of previous years. In total numbers of reported cases, the figure for 1948 has surpassed that of 1934, the previous highest recorded incidence, by more than two thousand cases. Even with the sharp increase of population in the state in recent years, the case rate per 100,000 population for 1948 exceeded that of 1934 (see Table 1).

TABLE 1.—*Poliomyelitis—Reported Cases and Case Rates for Selected Epidemic Years 1934-1948*

Year	Cases	Case Rates*	Estimated Population
1934	3,396	54.8	6,077,046
1939	973	14.3	6,815,130
1943	2,650	34.0	7,795,000
1946	2,164	23.4	9,250,000
1948	5,796	58.6	9,894,000

*Case rate per 100,000 population.

Cases of poliomyelitis are reported throughout the year in California, although there is the usual seasonal rise in incidence during the summer and early fall. Incidence peaks have occurred as early as June and as late as October. Following the 1946 epidemic with its peak in August and a total of 2,164 cases for that year, a high endemic level was maintained throughout 1947 and a total of 865 cases was reported for that year. At the beginning of 1948, the lowest number of cases within the previous 20 months was reported for January (13 cases). For the next two months, although the number of cases was not great, the rate of increase was showing a precipitous climb. However, the epidemic curve flattened out somewhat in April only to begin a steep upward swing again in May. A continuing increase in cases occurred in the following months, June showing approximately three times as many cases as May, and July cases trebling the June total. In August there were almost half again as many cases reported as in July, while the peak of the epidemic was reached in September with 1,437 cases reported for that month. The monthly totals of cases for August, September, October, November and December, 1948, were the highest on record for these months (see Table 2).

Of the 58 counties in the state, four did not report a single case of poliomyelitis for 1948. These counties are Alpine, Del Norte, San Benito and Sierra. Southern California, south of the Tehachapi mountain range, accounted for 3,850 cases or approximately 66 per cent of the total reported, while Los Angeles County reported by far the greatest number (3,134). The San Francisco Bay Area including the six counties, Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Solano, reported 761 cases or approximately 13 per cent of the total, while the central valley counties, some 16 in number, from Kern County in the south to Tehama in the north, accounted for another 13 per cent (775 cases). The remaining 410 cases (8 per cent) were reported for the most part from among the central and northern coastal counties, with a few from those counties along the Sierra Nevada mountain ranges.

The distribution of poliomyelitis cases by counties by month of report (January-December) 1948 is shown in Table 3 (on following page).

Table 4 shows the percentage distribution of reported cases of poliomyelitis by age groups for the year. A similar distribution is made of 261 poliomyelitis deaths recorded from January to October, 1948.

TABLE 4.—*Distribution of Poliomyelitis Cases and Deaths Among Various Age Groups*

Age Group	Cases Jan.-Dec. No.	Cases Jan.-Dec. Per Cent	Deaths Jan.-Oct.* No.	Deaths Jan.-Oct.* Per Cent
Under 1 yr.	168	2.9	6	2.3
1-4	1,697	29.4	39	14.9
5-9	1,588	27.5	41	15.7
10-14	680	11.8	35	13.4
15-19	367	6.4	24	9.2
20-24	381	6.6	40	15.3
25-29	430	7.4	31	11.9
30-34	252	4.3	30	11.5
35-44	180	3.1	13	5.0
45-54	22	0.4	2	0.8
55 and over	10	0.2	.....	.....
Total with ages	5,775	100.0	261	100.0
Not stated	21			
Totals	5,796		261	

*Data on deaths for November and December not yet available.

TABLE 2.—*Poliomyelitis—Seasonal Distribution of Reported Cases by Month of Report, Selected Epidemic Years 1934-1948**

Years	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1934	3,396	25	27	18	38	314	1,193	767	430	225	182	103	74
1939	973	27	15	18	23	53	253	473	533	620	308	228	99
1943	2,650	4	4	3	6	29	48	150	257	189	138	105	40
1946	2,164	54	20	24	19	34	67	198	693	562	303	111	79
1948	5,796	13	8	23	9	71	225	671	938	1,437	948	921	532

*Civilian cases only.

The age pattern shows a majority of cases (60 per cent) in the group under ten years of age with the 1-to-4 year age group containing the highest number of cases and the 5-to-9 year age group the next highest. In the groups above the age of ten, 18 per cent of the cases fall into the 10-to-19 age group, whereas over 22 per cent are in patients 20 years of age or older. The age distribution of the recorded deaths reveals that 44.5 per cent fell into the age group 20 and over, whereas only 22 per cent of cases fell into this group.

No attempt has been made to present a breakdown of cases according to clinical patterns because of incomplete data at this time. A more comprehensive report will be made in the near future as soon as complete data are at hand.

TABLE 3.—*Poliomyelitis Distribution Among Counties in 1948*

County	*Total*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*
Alameda	185	....	1	5	....	1	1	8	15	37	49	42	26
Alpine	....	....	....	....	....	....	....	....	....	....	....	....	....
Amador	2	....	....	....	....	....	....	....	....	....	....	....	2
Butte	8	....	....	....	....	....	....	3	....	3	2	....	....
Calaveras	....	....	....	....	....	....	....	....	....	....	....	....	....
Colusa	1	....	....	....	....	....	....	....	....	....	....	1	....
Contra Costa	111	....	....	....	2	1	1	2	16	29	24	21	15
Del Norte	....	....	....	....	....	....	....	....	....	....	....	....	....
El Dorado	8	....	....	....	....	....	....	....	3	1	....	4	....
Fresno	115	....	....	....	....	2	9	13	15	24	16	15	21
Glenn	5	....	....	....	....	....	....	....	5	....	....	....	....
Humboldt	18	....	....	....	....	1	....	....	2	7	4	2	2
Imperial	48	....	....	....	....	6	19	13	5	3	2	....	....
Inyo	4	....	....	....	....	....	....	....	2	....	....	....	2
Kern	233	....	....	....	....	....	1	7	4	53	36	83	49
Kings	41	....	....	....	....	....	....	1	5	10	....	7	18
Lake	1	....	....	....	....	....	....	....	....	....	....	1	....
Lassen	5	....	....	....	....	....	....	....	....	....	2	1	2
Los Angeles	3,134	4	4	7	4	23	108	377	582	874	480	477	194
Madera	15	....	....	....	....	1	2	2	1	2	2	2	3
Marin	37	2	....	....	....	4	3	3	2	14	4	2	3
Mariposa	1	....	....	....	....	....	....	....	....	1	....	....	....
Mendocino	7	....	....	....	....	....	....	....	1	2	3	1	....
Merced	67	....	1	1	....	19	11	15	4	6	4	6	....
Modoc	4	....	....	....	....	....	....	....	2	1	1	....	....
Mono	1	....	....	....	....	....	....	....	1	....	....	....	....
Monterey	44	....	....	....	....	....	....	1	11	12	5	11	4
Napa	10	....	....	....	....	1	....	....	....	2	1	3	3
Nevada	4	....	....	....	....	....	....	....	....	1	2	....	1
Orange	102	....	....	....	....	1	2	9	20	37	16	11	6
Placer	13	....	....	....	....	....	....	....	5	1	2	2	3
Plumas	1	....	....	....	....	....	....	....	....	....	1	....	....
Riverside	81	....	....	1	1	4	7	5	20	7	16	5	15
Sacramento	82	....	....	....	....	....	....	4	3	22	23	19	11
San Benito	....	....	....	....	....	....	....	....	....	....	....	....	....
San Bernardino	82	....	....	....	....	....	7	22	14	16	8	9	6
San Diego	340	....	....	2	....	2	19	97	68	77	41	19	15
San Francisco	284	1	....	4	....	3	3	26	21	41	72	65	48
San Joaquin	74	....	....	....	....	2	2	8	9	14	11	21	7
San L. Obispo	14	....	....	....	....	....	....	1	2	1	7	2	1
San Mateo	105	....	....	....	....	....	2	6	10	24	23	24	16
Santa Barbara	99	....	....	....	....	....	1	8	17	38	19	11	5
Santa Clara	91	....	....	....	1	....	2	2	7	26	37	3	13
Santa Cruz	21	1	....	1	....	....	....	1	1	7	1	5	4
Shasta	1	....	....	....	....	....	....	....	....	....	....	....	1
Sierra	....	....	....	....	....	....	....	....	....	....	....	....	....
Siskiyou	4	....	....	....	....	....	....	....	2	....	....	1	1
Solano	39	3	1	....	....	....	....	2	10	8	6	3	6
Sonoma	31	....	....	....	....	....	7	3	9	....	1	8	3
Stanislaus	66	1	....	1	....	....	14	9	15	8	6	7	5
Sutter	10	....	....	....	....	....	....	....	1	1	4	1	3
Tehama	1	....	....	....	....	....	....	....	....	....	....	....	1
Trinity	1	....	....	....	....	....	....	....	....	....	....	1	....
Tulare	38	....	....	....	....	....	2	7	4	4	6	6	9
Tuolumne	3	....	....	....	1	....	....	....	1	1	....	....	....
Ventura	63	....	....	....	....	....	1	9	17	8	8	14	6
Yolo	11	1	....	....	....	....	....	1	3	4	....	1	1
Yuba	8	....	....	....	....	....	....	1	....	1	2	3	1
*Not allocated	22	....	1	1	....	....	1	5	3	9	1	1	....
Totals	5,796	13	8	23	9	71	225	671	938	1,437	948	921	532

*Cases "Not Allocated" represent patients ill before entering the state or those who contracted their illness traveling about the state throughout the incubation period of the disease. These cases are not chargeable to any one locality.

The New Birth and Death Certificates

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Revised certificates for registration of live births, stillbirths and deaths were distributed to all physicians, hospitals and funeral directors in California for use beginning January 1, 1949. These forms were adopted in connection with the decennial revision of the standard certificates as worked out by the National Office of Vital Statistics through conferences with registration officials from each of the states.

The certificates for live birth and stillbirth are essentially unchanged. They present no problem to the physician, and require no discussion here, with a single exception. This is the provision on both certificates of an item for birth weight. It is believed that this information will be of great service to those studying the problem of prematurity.

The revision of the certificate of death brings a major change in the section "Cause of Death" to conform to recommendations of the World Health Organization. Mortality statistics have been as accurate as the original medical certifications of cause on which they stand, modified by treatment given these records by the statistical office. Both factors in this equation can now operate more efficiently and more to everyone's satisfaction.

As will be seen in the certificate section reproduced below, there is now a clear separation of the cause-of-death statement into Parts I and II with more specific explanations for each part. A great deal of history and thought is represented in this revision.

"Cause of death" is now defined as the condition, disease process, abnormality, injury or poisoning leading directly or indirectly to death. Symptoms or modes of dying such as heart failure or asthenia are not considered to be causes of death for statistical purposes. The problem of classifying causes of death for vital statistics is relatively simple when only one cause is involved, but in many cases two or more conditions contribute to death. Traditionally, one of these causes has been selected for vital statistics and described with little uniformity as the "primary cause," "principal cause," et cetera. The "Manual of Joint Causes" has been utilized since 1914 for arbitrary selection of the statistical cause of death. It is now obsolete and will no longer be used.

It was agreed by the revision conference that the "cause" to be tabulated hereafter should be the underlying cause of death. In the past this cause too has been selected in various ways in different countries. The principle now adopted defines the underlying cause of death as (a) the disease or injury which initiated the events leading directly to death, or (b) the circumstances of the accident or violence which produced the fatal injury. To assure uniform application of this principle, utilization of the new medical certification form is mandatory.

This form makes the physician responsible for indicating the train of events which resulted in death. The certifying medical practitioner is the only one in a position to decide which of the conditions led directly to death, and to state the antecedent conditions, if any.

In Part I of the section (Item 19-I) reproduced here is reported the cause leading directly to death (line IA), and also the antecedent conditions (lines IB and IC) which give rise to the cause reported in line IA—the underlying cause being stated last in the sequence of events. However, no entry is necessary in lines IB and IC if the disease or conditions leading directly to death, stated in line IA, describe completely the series of events.

In Part II (Item 19-II) is entered any other significant condition which unfavorably influenced the course of the morbid process, and thus contributed to the fatal outcome, but which was not related to the disease or condition directly causing death.

In summary, the manner in which the physician enters the cause of death will be the deciding factor in determining for statistical purposes the underlying cause—which of course is the essence of the data on the certificate. The new plan eliminates the old procedure of using an arbitrary manual to select the statistical cause of death when more than one condition is certified by the attending physician. Revised classification procedure and the modified form of the medical certificate of cause of death have both been adopted as uniform international aids to more accurate and more comparable death statistics.

CAUSE OF DEATH (Enter only one cause per line for (A), (B) and (C))	19-I. This does not mean the mode of dying such as heart failure, asthenia, etc. It means the disease, injury or complications which caused death.	19-IA Disease or Condition Directly Leading to Death	◀	APPROXIMATE INTERVAL BETWEEN ONSET AND DEATH
	ANTECEDENT CAUSES Morbid conditions, if any, giving rise to the above cause (A) stating the underlying cause last.	19-IB Due to	◀	
		19-IC Due to	◀	
	19-II. Conditions contributing to the death but not related to the disease or condition causing death.	19-II. Other Significant Conditions	◀	

(The above is not an exact reproduction; the form to be used is somewhat larger and more space is provided for the required notations.)